

Book (Pine of the)

Drawer 21a

June 2nd

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# Curios and Relics

## Furniture

### Desk

## Building Plans

Excerpts from newspapers and other sources

From the files of the  
Lincoln Financial Foundation Collection



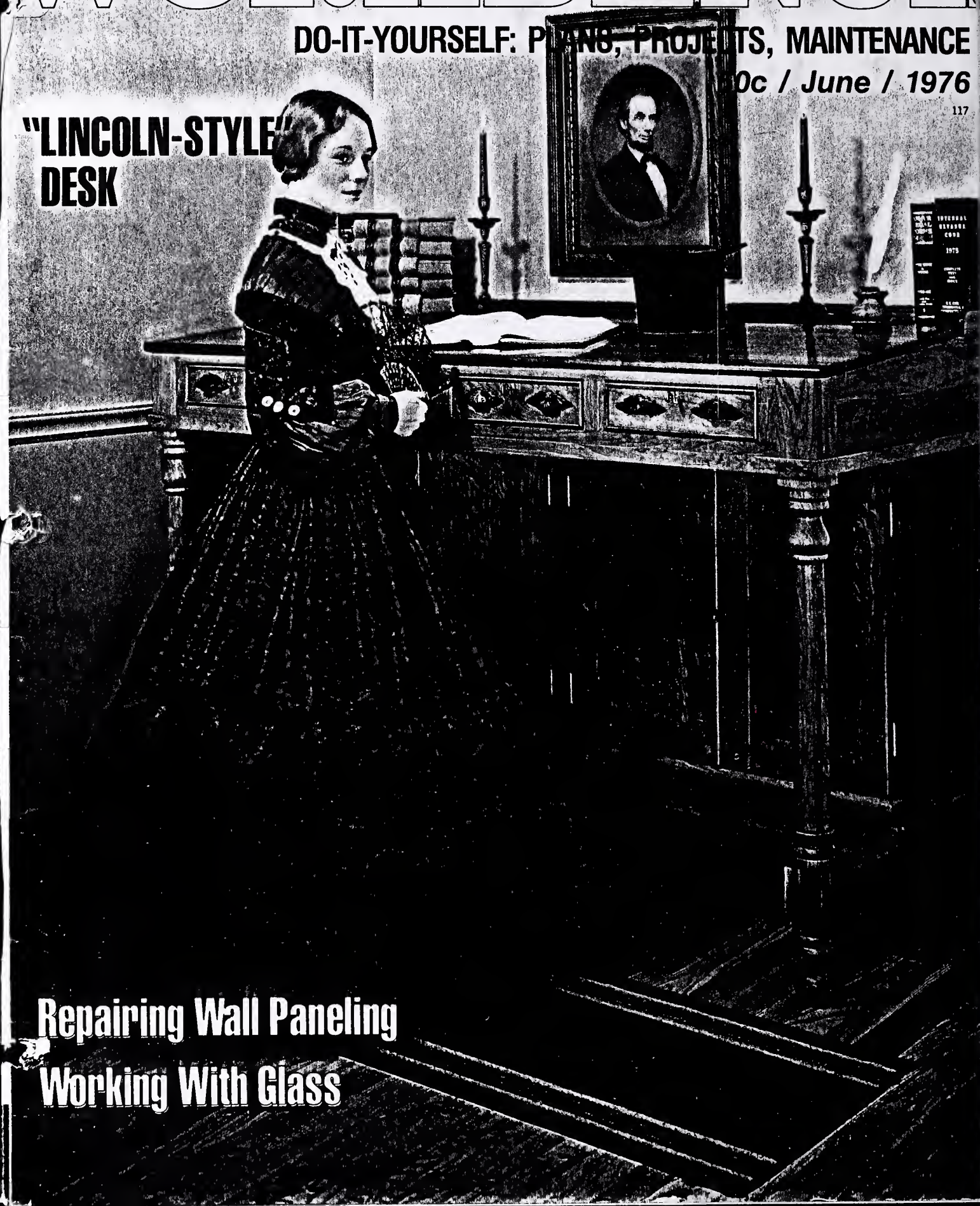
# WORKBENCE

DO-IT-YOURSELF: PLANS, PROJECTS, MAINTENANCE

10c / June / 1976

117

## "LINCOLN-STYLE" DESK



Repairing Wall Paneling

Working With Glass





# "LINCOLN-STYLE" DESK Part 1



Our Lincoln-style desk is finished in light tones; you might want darker finish with your decor.



Standard-size file folders will fit in partitioned cabinets, but larger folders will require more depth.



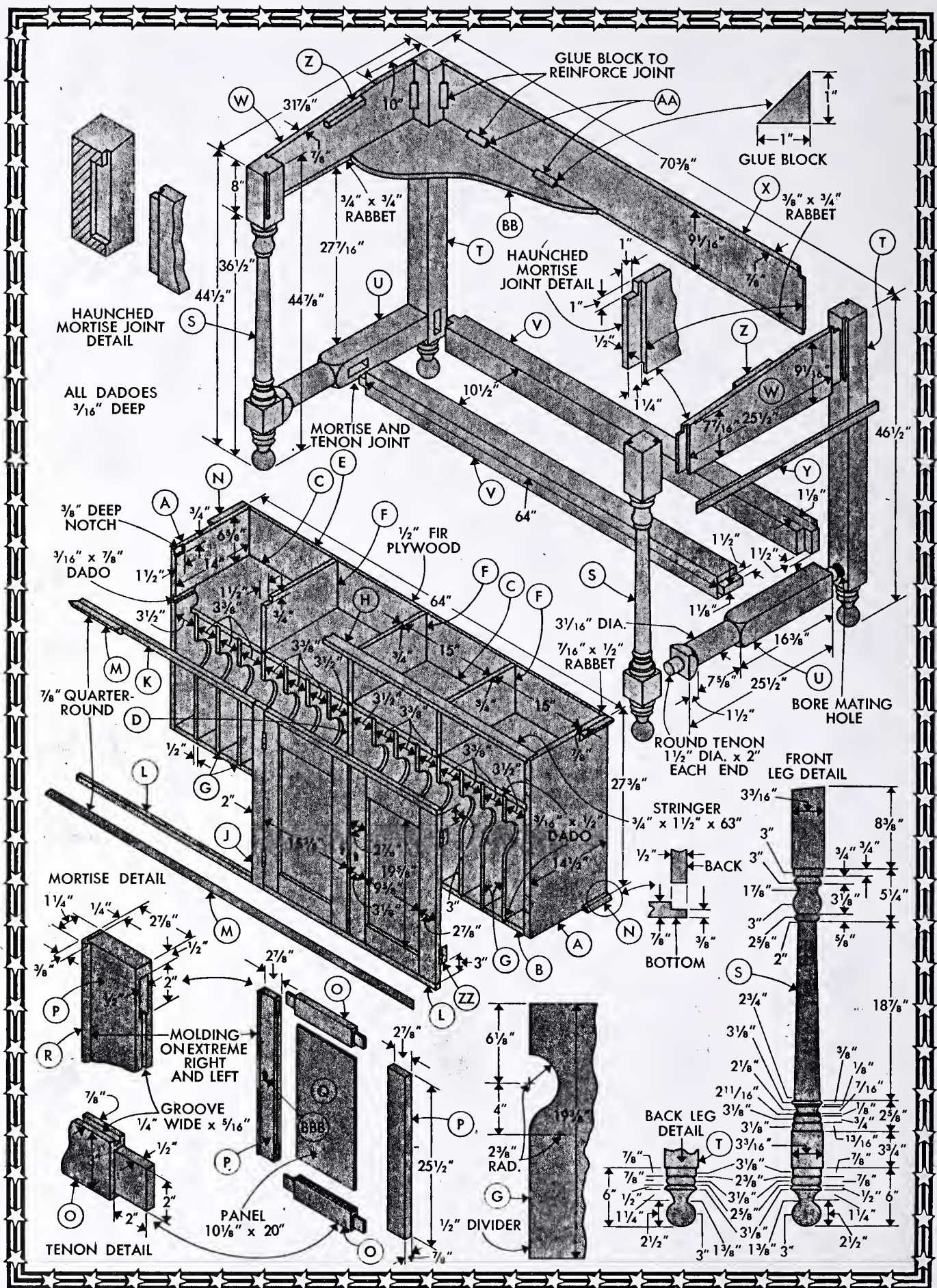
The original of this stand-up desk is preserved in the Lincoln-Herndon law offices building in Springfield, Illinois. Built by a local cabinetmaker after the courthouse was built in 1840, the desk was used by the Circuit Court Clerk of the Menard County Court House. Lincoln's New Salem is located in Menard County, Illinois, and was part of his province when he practiced law in nearby Springfield.

The nearly 4-ft. height of the desk made it convenient for recording court proceedings in the large ledgers that were stored in the divided cabinets under the desk. Similar desks were used in many large businesses for bookkeeping.

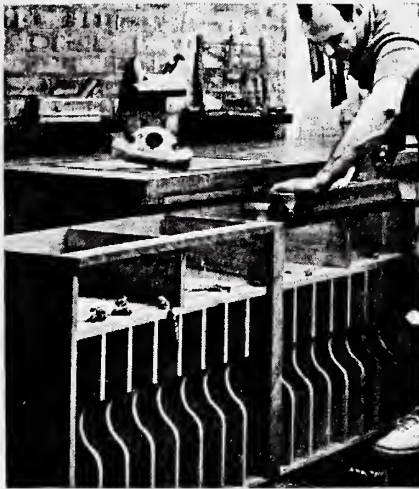
Our "Bicentennial Project" was copied from the original so it is within 1/16 in. of being the same, and was built of the same woods, with a few exceptions: plywood replaces some interior boards. The maple trestle of the original—which had been stained cherry to match the cabinet—was reproduced in cherry. The gallery of 1/2-in. oak around the desk top was reproduced in walnut.

If you want to use standard legal-size file folders in the partitioned cabinet, make it 1 in. deeper back to front. The height and design of the desk also suggest uses for it other than the original: it would make an attractive bar with some modifications of the cabinet, or it could be









Cherry trim is nailed to front of lower cabinet, planed flush with dividers. Hand tools were used.



After plywood back has been cut to size and tacked into rabbets, plane dividers flush with plywood.

used to house a stereo setup.

To keep costs down, the various panels could be made of hardwood-plywood, rather than solid stock. The legs and trestles could be glued-up from  $\frac{3}{4}$ -in. hardwood boards; hardwood 4 x 4s are quite expensive. Hardwood in a thickness of  $\frac{7}{8}$  in. is not easy to find, so standard  $\frac{3}{4}$ -in. hardwood, and hardwood-plywood can be substituted. Just keep in mind that using stock  $\frac{7}{8}$  in. thinner will require some adjustments in the dimensions. Basically you want the overall length, width and height to be what is called out in the drawing.

Hand tools, contemporary reproductions of antique woodworking devices, were used to assemble the WORKBENCH reproduction. The tools are available from several advertisers, while one hand tool is made in your own shop, and is used to shape molding. Called a "scratch stock," it's described in Part 2 of this article. The "purist" may wish to



Modern version of classic plow plane can be used to cut stopped grooves in door rails and stiles.

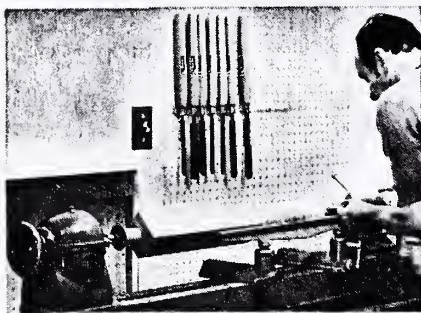


Stiles of doors are cut a trifle long, then cut to length after glue has set, door is fitted.

### Materials List

<b>Cabinet</b>		Q, Panel, $\frac{1}{4}$ " x $10\frac{1}{8}$ " x 20", 4 req'd.
A, End, $\frac{7}{8}$ " x $14\frac{1}{2}$ " x $27\frac{3}{8}$ ", 2 req'd.		R, Cock beading, $\frac{3}{8}$ " x $1\frac{1}{4}$ " x $25\frac{3}{8}$ ", 2 req'd.
B, Bottom, $\frac{7}{8}$ " x $14\frac{1}{2}$ " x $62\frac{1}{4}$ ", 1 req'd.		<b>Trestle</b>
C, Shelf, $\frac{7}{8}$ " x 14" x $62\frac{5}{8}$ ", 1 req'd.		S, Front leg, 3-3/16" x 3-3/16" x $44\frac{7}{8}$ ", 2 req'd.
D, Divider, center, $\frac{3}{4}$ " x 14" x $19\frac{3}{8}$ ", 1 req'd.		T, Back leg, 3-3/16" x 3-3/16" x $46\frac{1}{2}$ ", 2 req'd.
E, Back (plywood), $\frac{1}{2}$ " x 27" x $63\frac{3}{8}$ ", 1 req'd.		U, Stretchers, side, 3-3/16" x 3-3/16" x $29\frac{1}{2}$ ", 2 req'd.
F, Upper divider, $\frac{3}{4}$ " x 6-13/16" x 14", 3 req'd.		V, Stretchers, center, 3-3/16" x 3-3/16" x 67", 2 req'd.
G, Ledger divider, $\frac{1}{2}$ " x 14" x $19\frac{3}{8}$ ", 14 req'd.		W, Side, $\frac{7}{8}$ " x 9-1/16" x 28", 2 req'd.
H, Stringer, $\frac{3}{4}$ " x $1\frac{1}{2}$ " x 63", 1 req'd.		X, Back, $\frac{7}{8}$ " x 9-1/16" x $66\frac{1}{2}$ ", 1 req'd.
J, Facing, center, $\frac{7}{8}$ " x 2" x $27\frac{3}{8}$ ", 1 req'd.		Y, Facing, side, 5/16" x 1-5/16" x $32\frac{3}{4}$ ", 2 req'd.
K, Facing, upper, $\frac{7}{8}$ " x $\frac{7}{8}$ " x 31", 2 req'd.		Z, Glue block, 1" x 1" x 7", 2 req'd.
L, Facing, bottom, $\frac{7}{8}$ " x 1" x 31", 2 req'd.		AA, Glue block, 1" x 1" x $2\frac{1}{2}$ ", 20 req'd.
M, Front trim, $\frac{7}{8}$ " quarter-round x $65\frac{3}{4}$ ", 2 req'd.		(some used in part 2)
N, Side trim, $\frac{7}{8}$ " quarter-round x $16\frac{1}{4}$ ", 4 req'd.		BB, Bottom, $\frac{3}{4}$ " x $30\frac{3}{8}$ " x $70\frac{1}{8}$ " (plywood), 1 req'd.
<b>Doors</b>		ZZ, Hinges, narrow butt, $1\frac{1}{2}$ " x $1\frac{1}{2}$ " open, 8 req'd.
O, Rails, $\frac{7}{8}$ " x 3" x $13\frac{3}{8}$ ", 8 req'd.		Cabinet locks with brass escutcheons, 4 req'd.
P, Stiles, $\frac{7}{8}$ " x $2\frac{7}{8}$ " x $25\frac{1}{2}$ ", 8 req'd.		





Legs for trestle can be turned from 4 x 4s, or you can glue up cherry boards to make block.

use hand-cut nails in assembling the desk, and a couple of our advertisers sell them.

Begin construction of the lower cabinet by gluing up the cherry ends (or use hardwood-plywood). Glue up the poplar top, bottom-center divider and 14 ledger partitions. Cut rabbets and dadoes as required.

Assemble and check for square. Cut upper dividers to size and glue in place after notching for the stringer. Attach stringer. Cut, fit and attach the cherry trim at top, bottom and center of front. Glue and nail plywood back into rabbets in sides.

Cut rails and stiles for doors, dado, then cut mortises and tenons. They should be an easy push fit. Make the panels, check for easy fit, then finish about  $\frac{1}{4}$  in. of the perimeters. This will assure that no raw wood shows if the panels later shrink.

A rabbet now is cut  $\frac{1}{8}$  x  $\frac{3}{4}$  in. on solid stock, the edge is rounded and the cock beading for the door edge is cut free. Glue and nail the beading in place. Fit all four doors.

For the trestle, cut square stock to length, or glue-up thinner boards. Turn to the profiles shown. If your lathe is short, turn the legs in two sections and glue and dowel them together. Bore and cut mortises in the



Mortises are made by first boring line of holes, then slot is cleaned out with mortising chisel.

legs to accept the various stretchers.

Before cutting tenons on the center stretchers, check to make sure the cabinet will fit snugly between the legs. Adjust dimensions as required for correct fit.

Cut mortises in the upper parts of the legs to accept the sides and back, parts W and X, that are rabbeted to accept bottom BB.

"Dry-assemble" the trestle, check for square and fit of the cabinet. Do not, at this time, glue the trestle assembly. It is first necessary to make and fit the frame into which the drawers slide; it goes between the front legs.

You can, at this time, make the carved drawer pulls described in another article in this issue. Alternatively, the pulls can be purchased.

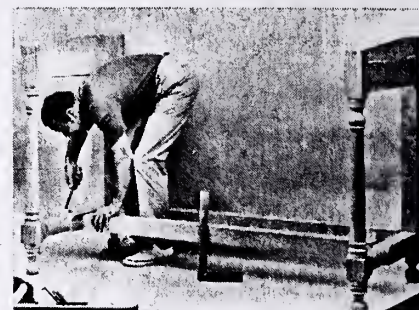
If you want to finish the inside of the lower cabinet, do it before you assemble the pieces.

Part 2 will describe the rest of the construction of the desk, and a modified "French-Polish" finish.

We have suggested that the desk



When prying out waste in long through mortise, guard against splitting wood by clamping.



Assemble trestle "dry" to check that it's square and that cabinet fits snugly between the rear legs.

might be used as a bar, but obviously the slanting top would be a problem. Rather than making the desk top level, we recommend that provision be made to hold the top level when it is used as a bar. Hinged blocks, locking lid supports or similar devices could be used for this purpose.

While we also suggested that the desk could be used as a stereo cabinet, we further recommend that you study a book on the construction of speaker cabinets. The end cabinets in the desk will have to be lined with sound-absorbing material before the speakers are installed, and all joints will have to be reinforced with glue blocks to reduce to a minimum any tendency of the wooden parts of the cabinet to vibrate.

The end door frames will have to be rabbeted on the inner edges to accept a frame over which speaker cloth is fastened. You may wish to carry the idea one step further, providing removable speaker units with replacement door inserts.





# "LINCOLN- STYLE" DESK Part 2



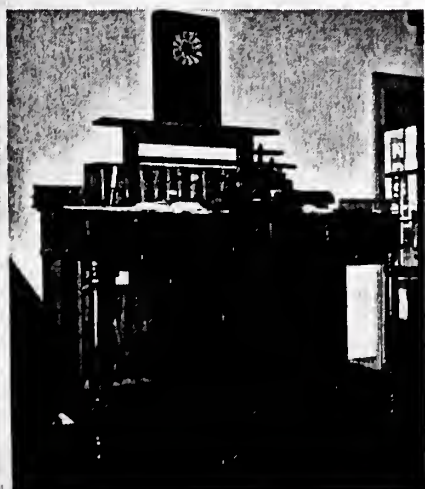
Original desk had drawer openings cut into one large board. Wide boards are hard to find, this assembly's stronger.



Mark haunched tenon on cabinet front to match precisely the distance between front legs with lower cabinet in place.



Tenon on cabinet front is started with back saw which makes straight cut down to finished depth.



On the original desk, a single wide board had openings cut in it for the drawers. If you have such a wide board, you can duplicate the original. We substituted a frame assembled with mortise-and-tenon joints that is stronger and much more warp-resistant.

After the frame was assembled and the glue was dry, a haunched tenon was cut on each end. When the tenons fit snugly into the leg mortises, the frame was "dry-fitted" in place and the center divider DD was positioned. Dowel holes were marked and drilled in the frame and the front end of the divider.

The complete trestle was now assembled with glue, including the center divider and the front drawer

## DAVID WARREN

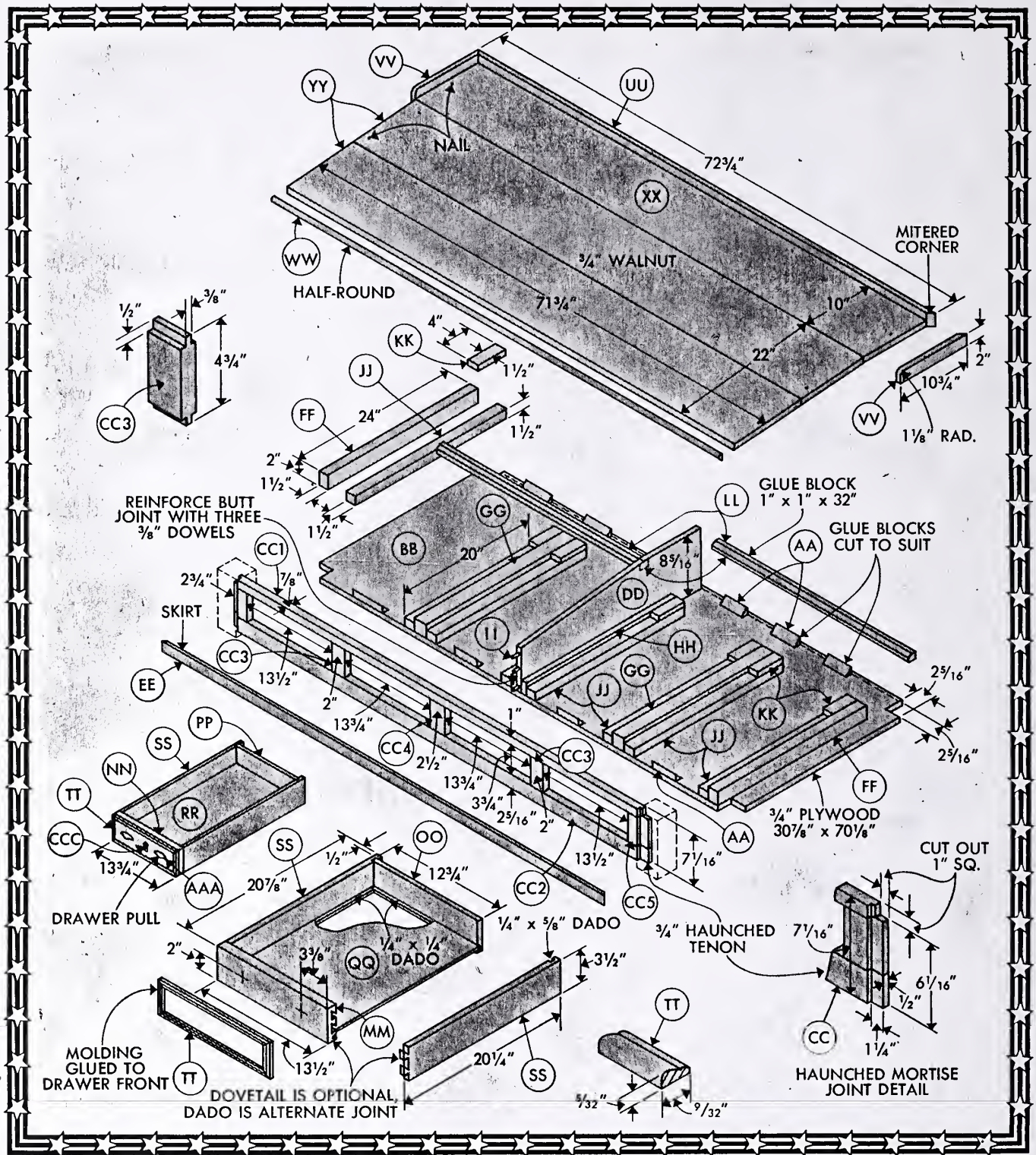
frame. Everything was checked for square and plumb and the assembly was clamped and allowed to set 24 hours to make sure all glue joints were dry.

Next, the several glue blocks were attached, then the drawer guides were cut to size and length and glued and nailed to the bottom. Care was taken to make sure the guides and center divider DD were at absolute right angles to the front of the cabinet.

Support strips LL, actually long glue blocks, were beveled half their width to match the slant of the sides and the center divider, then glued in place. The top of the front frame also was beveled to match this slant.

At this time you can reinforce the





assembly by nailing through the bottom of the lower cabinet into the longitudinal stretchers, and through the cabinet sides into the back legs. Yes, screws can be used, but nails were the fasteners in the original.

Assemble and fit the drawers in the top cabinet. Carefully measure the openings and spacing of guides in your desk, then modify, if necessary, dimensions of the drawers so they properly fit your cabinet.

A scratch stock, made from hard-

wood scraps and an old hacksaw blade as shown in the drawing, is used to make the molding for the drawer fronts. Scrape the scratch stock over the wood until the molding is shaped, then cut it loose from the stock. For the adventuresome hand-tool buff, the scratch stock also can be used to make the half-round molding required for the lower cabinet, as described in Part 1.

Cherry is used for the drawer fronts, the sides and back are oak.

Either a dovetail or dado joint is used between the sides and the fronts of the drawers.

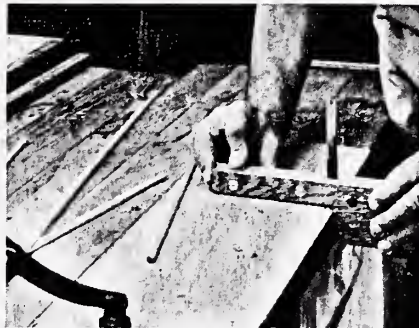
Slip the drawers into the openings onto the drawer guides until the fronts are flush with the frame. Glue and nail the stop blocks KK in place. Fit and attach the molding to the drawer fronts with glue and brads.

The desk top, XX and YY, is made from glued-up strips of cherry, or cut from hardwood-plywood. After the walnut gallery is glued and brad-





Tenon is finished with rabbet plane. Check fit of tenon in mortise frequently to assure snug fit. Saw out haunch.



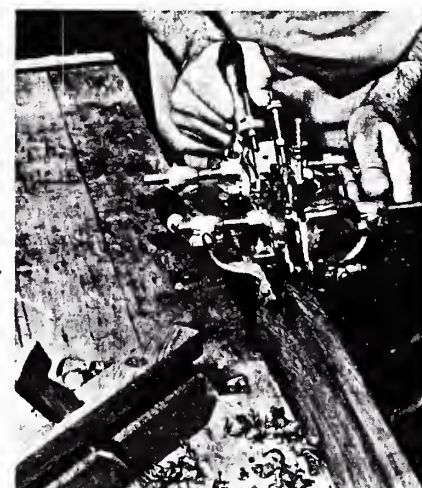
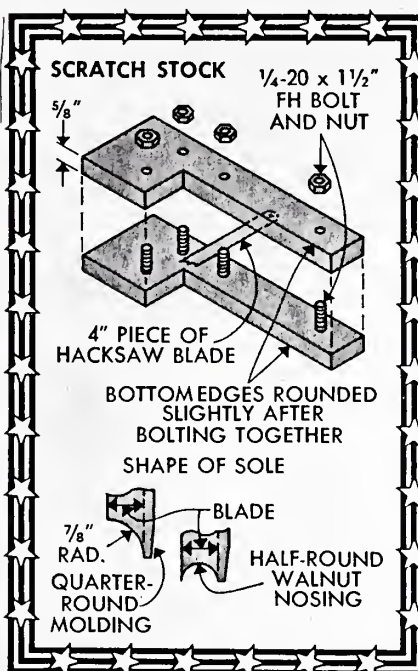
Moldings for drawer fronts are made with "scratch stock" assembled from hardwood scraps and hacksaw blade.



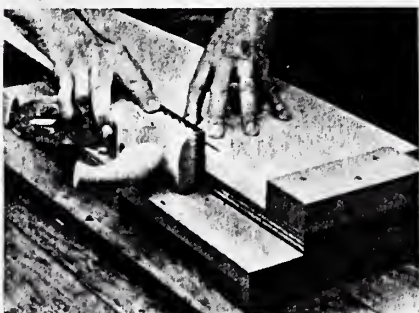
Scraper plane, then hand scraper was used to smooth flat surfaces. Scraper polishes wood, leaving a lustrous grain.



Back edge of quality handsaw is thinner than tooth edge, so saw cuts narrower kerf with less set in teeth.



Half-round and quarter-round moldings were made with multi-plane, much like old timers used to create trim.



"Shooting board" and jack plane are used to square up edges of stock, remove saw marks.



Original desk had cast-iron drawer pulls. Reproductions not being available, we used hand-carved pulls of walnut.

ded to XX and the half-round WW is attached, only the ends of YY need veneer tape if plywood is used.

A traditional grain filler for walnut is plaster of paris. Allow it to dry for 36 hours, then scrape the surface smooth so plaster remains only in the open grain. Next, brush on a coat of 3-lb.-cut shellac; when dry, sand with 220-grit paper.

To darken the cherry to blend with the walnut, generously apply a solution of 1 pint boiled linseed oil, 1 pint turpentine and 1 teaspoon of walnut stain. Warm to about 100 degrees and apply with rag.

Buff on several coats of a solution consisting of 25 per cent turpentine, 25 per cent boiled linseed oil and 50 per cent 2-lb.-cut shellac. Use this on the walnut. For the cherry, darken the solution with a few drops of

walnut stain.

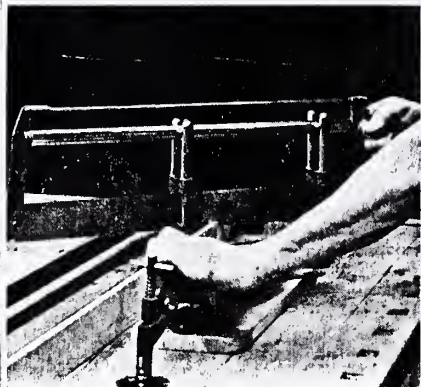
Apply each coat with 4/0 steel wool, let dry for a day or two, then apply another coat. Before applying each subsequent coat, scrub off any linseed-oil residue with a soft, dry cloth. Buff on paste wax to complete the finish on your Bicentennial heirloom.



Wooden molding plane also can be used to make half-round and quarter-round, using stock or shop-ground iron.



## Materials List



Old-style miter saw has greater depth of cut, narrower blade under tension, thus less friction than wider blade.



If miter cut is not accurate, or you cut piece too long, "miter jack" can be used with plane to trim accurately.



Narrow butt hinges are used for doors on lower cabinet, locks are type that are mortised into door edge and back.



Finish used was variation of French polishing. Stain was used to blend light and dark streaks in cherry and walnut.

- Upper Cabinet  
 CC1, Facing,  $\frac{7}{8}$ " x 1" x 66 $\frac{1}{2}$ ", 1 req'd.  
 CC2, Facing,  $\frac{7}{8}$ " x 2-5/16" x 66 $\frac{1}{2}$ ", 1 req'd.  
 CC3, Facing,  $\frac{7}{8}$ " x 2 $\frac{1}{2}$ " x 4 $\frac{3}{4}$ ", 2 req'd.  
 CC4, Facing,  $\frac{7}{8}$ " x 2" x 4 $\frac{3}{4}$ ", 1 req'd.  
 CC5, Facing,  $\frac{7}{8}$ " x 2 $\frac{3}{4}$ " x 4 $\frac{3}{4}$ ", 2 req'd.  
 DD, Divider, center,  $\frac{3}{4}$ " x 8-5/16" x 30 $\frac{1}{8}$ ", 1 req'd.  
 EE, Facing, front, 5/16" x 1-5/16" x 71", 1 req'd.  
 FF, Drawer guide, 1 $\frac{1}{2}$ " x 2" x 24", 2 req'd.  
 GG, Drawer guide, 2" x 2" x 24", 2 req'd.  
 HH, Drawer guide,  $\frac{7}{8}$ " x 2" x 24", 2 req'd.  
 II, Dowels,  $\frac{3}{8}$ " x 1 $\frac{1}{2}$ ", 3 req'd.  
 JJ, Drawer guide, 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " x 24", 8 req'd.  
 KK, Drawer stop,  $\frac{3}{4}$ " x 1 $\frac{1}{2}$ " x 4", 8 req'd.  
 LL, Support strips, 1" x 1" x 32", 2 req'd.

- Drawers  
 MM, Front,  $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 13 $\frac{1}{2}$ ", cherry, 2 req'd.  
 NN, Front,  $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 13 $\frac{3}{4}$ ", cherry, 2 req'd.  
 OO, Back,  $\frac{5}{8}$ " x 3 $\frac{1}{2}$ " x 12 $\frac{3}{4}$ ", 2 req'd.  
 PP, Back,  $\frac{5}{8}$ " x 3 $\frac{1}{2}$ " x 13", 2 req'd.  
 QQ, Bottom,  $\frac{1}{4}$ " plywood x 12 $\frac{3}{4}$ " x 19 $\frac{3}{8}$ ", 2 req'd.  
 RR, Bottom,  $\frac{1}{4}$ " plywood x 13" x 18 $\frac{1}{2}$ ", 2 req'd.  
 SS, Side,  $\frac{5}{8}$ " x 3 $\frac{1}{2}$ " x 20-7/16", 8 req'd.  
 TT, Cock bead, 5/32" x 9/32", x 12 ft., cut to suit.  
 Top (all walnut)  
 UU, Gallery back,  $\frac{1}{2}$ " x 2" x 72 $\frac{3}{4}$ ", 1 req'd.  
 VV, Gallery side,  $\frac{1}{2}$ " x 2" x 10 $\frac{3}{4}$ ", 2 req'd.  
 WW, Half-round,  $\frac{3}{4}$ " x 71 $\frac{3}{4}$ ", 1 req'd.  
 XX, Top,  $\frac{3}{4}$ " x 10" x 71 $\frac{3}{4}$ ", 1 req'd.  
 YY, Top,  $\frac{3}{4}$ " x 11" x 71 $\frac{3}{4}$ ", 2 req'd.  
 (alternate YY is  $\frac{3}{4}$ " plywood, 22" x 71 $\frac{3}{4}$ ", 1 req'd.)

- Hardware  
 Cabinet locks (drawer) 4 req'd.  
 Drawer pulls, metal (or carved wood), 8 req'd.

The author wishes to thank Frog Tools Limited, Chicago for the loan of many hand tools, plus much help and information. Other sources for the tools are Garrett-Wade and Woodcraft Supply.  $\Delta$   $\Delta$

## IN THE NEXT ISSUE . . .



### FIREPLACE FACELIFTS

Any home owner with a fireplace will find useful ideas in this "two-approach" story.

The first approach describes how to extend the hearth for better spark protection, and how to build an attractive new mantel to fit over the old one. Appearance is improved and there is display space for decorative pieces.

"Enlarging" of the fireplace is accomplished by applying simulated masonry on adjacent walls to visually widen it.

None of the improvements require much time, material or skill, and any of the ideas can be used without the others.

Our second approach is used when there is room to build storage space around the fireplace. Framing is constructed around the fireplace to extend out beyond it, and paneling is applied. Incorporated in the construction are doors covered with paneling, providing "secret" access to the area.

The space could be used for storage, such as firewood. Depending on the area enclosed, the space could contain a bar, or a movie or slide projector and equipment could be stowed. Photographic buffs will immediately see the potential for a darkroom, handy but out of sight.

Updating Front Entrance tells how to make this "first impression" of your home look better, be more burglar-resistant and save energy. A new lockset, rehanging (or replacement of the hinges), weatherstripping and a new threshold do the job. Your front door will say "hello" to friends, "keep out" to burglars and save cooling and heating costs.

Know Your Finishes tells how to make some sense of the many types of paints and finishes available today. What types of stain or paint do you use inside or outside? What kinds of finishes are applied to masonry, to floors? What are the differences between latex, alkyd, oil-base, urethane and epoxy paints, and where and how are they used?

A complete story on modern "coatings."







